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PUBLIC ACQUISITION OF PRIVATE LANDS
AS AN AID TO PRIVATE FORESTRY

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PUBLIC ACQUISITION OF PRIVATE LANDS AS AN AID TO PRIVATE FORESTRY

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Within and contiguous to existing public forests is a great deal of privately owned forest land integrally related to and demanding management in common with the public holdings. Additionally, there are many forest areas not in public ownership where public action will be necessary to conserve the social and economic values of such lands. Some of such land may revert to the public through tax delinquency, but much of it can be publicly acquired only by equitable compensation to the owners thereof, either by payments in cash or bonds, or by grants of other publicly owned natural resources, or by agreement to special conditions of donation. The term "acquisition" as used in this discussion therefore means the systematic establishment of public ownership in forest-productive lands by dedicating to that purpose public funds, resources, or administrative facilities.

GENERAL REACTION OF PRIVATE TIMBERLAND OWNERS TO THE PRINCIPLE OF PUBLIC ACQUISITION

The reactions of owners of private forest lands toward past, present, and proposed programs of public acquisition of forest lands may be divided into four broad classifications—one negative, the others favorable. In recent years a certain minority has envisioned the public-forest properties chiefly as potential future competitors in the function of timber supply, apprehensive of the effect upon future prices that would result from timber produced without taxation, with funds obtainable without interest charge or at rates of interest lower than

those available to private enterprises, and with operating deficits justified by collateral public benefits.

On the other hand, numerous private owners of forest lands see in proposed programs of public acquisition of forest lands a new leadership by public agencies in the field of actual silviculture; a stimulation of research and experimentation through which more practical and profitable principles of forest-land management and utilization will be evolved and demonstrated for the common benefit of all timber-productive properties. To others, the proposed public forests are desired assurances of permanent sources of timber supply for established wood-using industries and communities which, by supplementing the supplies from inter-related private lands, will more certainly guarantee and stabilize sustained timber production and utilization and thus create better conditions for the private practice of forestry than would prevail in the absence of the public forests. Finally, other timberland owners regard the policy with favor because they see in it a public willingness to assume in greater degree obligations of forest-land ownership which cannot be borne by private owners; as a procedure by which they can, on terms equitable to all interests concerned, relieve themselves of an excessive burden of unliquidated stumpage by means other than destructive exploitation inimical both to private and public welfare.

The fear that the timber products of public forests will compete destructively for future markets can be considered only as an abstraction. Such competition has not thus far assumed alarming proportions nor does it appear to have serious future probabilities. It seems wholly inconceivable that any public agency would for any length of time be allowed to manage a public resource in ways destructive of sound private enterprise or otherwise inimical to the best economic interests of the region, State, or Nation. If any such tendency developed it would promptly be corrected. Then, too, as compared to private action, there is inevitably a certain inflexibility and routine in any form of public management which would tend to equalize advantages of tax exemption, cheaper credit, and smaller necessity for affirmative financial returns. All other factors being relatively equal, the greater flexibility, simplicity, and lower cost of private management should enable it successfully to compete with the products of public forests. Upon types of land where this is not true, where inherent disadvantages would militate against or preclude successful private-forest management, the unavoidable additional elements of cost of timber production should equalize whatever advantages of public administration there might be. The apprehension that the products of public forests generally could and would undersell the products of private forests lacks a valid and tenable foundation.

The future of forestry in the United States hinges largely upon the development of a technique in the management of forest lands which within practical limitations of costs will most adequately realize their potentialities for the production of timber commodities and related economic and social services. This not only requires the full exploration of the field of research and experimentation but also widespread and systematic demonstration of the principles and methods essential to highest use and their practical consequences, biologically, economically, and financially. Few if any private owners are prepared or disposed to pioneer this field; it is peculiarly a public function. Its

generally beneficial consequences to private forestry already have been demonstrated beyond doubt. The function of research and demonstration is facilitated by the availability of adequate areas of public forest lands which can be managed for the purpose of deriving scientific facts rather than exclusively for monetary returns.

The creation of public forests within zones tributary to established wood-using industries and communities, especially those representing large fixed capital investments such as pulp and paper plants, is generally an additional assurance of permanence and stability. There are few large wood-using plants or dependent communities whose permanence does not vitally depend upon the systematic recreation of at least a part of the forest capital necessary to the future life of the enterprise. Ordinarily, existing and immediately prospective timber supply is adequate only for a part of a complete forest rotation or cycle of operation. Private provision of the timber products necessary to bridge over the hiatus or period of deficiency may not be economically practical. Barring public action, the early disintegration of the plant or community would be inevitable. With public cooperation through public acquisition and management of a part of the tributary forest land, the permanency of the plant or community may be definitely assured, thus promoting continued and constructive private management of that part of the forest area upon which such management is financially practicable.

Any program of public acquisition of forest land inevitably affords owners of such land opportunity to relieve themselves of its ownership. As now generally conducted, it does not afford them a means to unload at excessive prices. Principles and methods of land appraisal and purchase have now been so systematized and are so carefully conducted that the owners of the desired lands seldom are able to capitalize the public program for purposes of unearned profit in any save a minor degree. It is in some instances true that properties are not in demand by other buyers, that their owners tentatively or positively contemplate relinquishment through tax delinquency. But by the time the owners have complied with all of the requirements of public purchase, the nominal per acre value they may receive for such lands constitutes a negligible net consideration and by its payment properties which otherwise would pass through a long period of neglect and damage, with marked impairment of their productive values and progressively multiplying costs of regeneration, promptly are placed under efficient control and management and thus are more readily and economically restored to a condition of productivity. Even where it is reasonably certain that the lands eventually will revert to public ownership through tax delinquency, it nevertheless may be the highest public economy to allow a reasonable consideration for their early conveyance to public ownership, rather than to take over badly damaged lands 5 or 10 years later and expend much larger sums for their reclamation.

A program of public acquisition of forest lands, by permitting a private owner to divest himself of nonoperable properties whose carrying charges are forcing a destructive and uneconomic liquidation of stumpage values, may enable that owner to constructively and adequately manage a certain part of the ownership and thus aid very directly in the establishment of private forestry as a stable practice. Such a result promotes, with a minimum net cost, a maximum contribution to a national program of forest conservation.

ECONOMIC JUSTIFICATION AND CONSEQUENCES OF AN ENLARGED PUBLIC ACQUISITION PROGRAM

Even the tentative proposal of an enlarged program of public acquisition of forest lands will immediately give rise to a series of vitally important questions. One will be that of cost; of the ability of the public to finance such a program and the economic soundness of that type of public investment as compared to other pressing needs for constructive public action. Another will be that of political policy, of the logic and merit of a program which contemplates enlarged public participation in a field hitherto quite commonly regarded as one primarily of private initiative. Both of these questions hinge largely upon the answer to a third question, namely, the economic justification and consequences of such a program. The question of costs is not one of amount but of economic and social necessity and net beneficial consequences. The question of jurisdiction is not exclusively one of prerogative but of the most logical and effective method of collective public action. The facts which follow seem logically to imply that a substantially enlarged future program of public forest-land acquisition is fully justified and promises large beneficial economic consequences.

In any program of public forest-land acquisition the lands requiring consideration fall into two broad classes, viz: (1) those largely denuded of their forest cover or supporting only seedlings or saplings, or advanced second growth not yet of merchantable dimensions or quality, and (2) those supporting mature stands of timber of commercial size, quality, and volume. Units meeting the minimum requirements of efficient and economical public administration occasionally contain lands of only the first class but more commonly they embrace lands of both classes and in their adequate development as public properties it frequently is necessary to decide whether the heavily timbered lands shall be acquired as fast as funds are available and price agreements can be reached, or whether they shall be excluded from the purchase program until their mature values have been exploited by private enterprise and they can be acquired at low unit costs as cut-over lands. Past experience creates serious doubts as to whether the latter policy is in the long run the most economical, as the lower prices at which the cut-over and often seriously damaged lands can be acquired frequently are offset by losses of the revenues which could have been secured through sound operation of the mature stumpage, and/or by the added costs of restoring the lands to productive condition. Aside from this factor of the initial investment required to carry out a program of acquisition, other considerations of public policy deserve attention.

ACQUISITION OF LANDS DENUDED, DEPLETED, OR IN VARIOUS STAGES OF REGROWTH

Much of the land in this category has lost much or all of its power to provide men with creative employment, to support industries, to contribute to costs of local government or to otherwise promote desirable economic and social objectives. Any measure that will restore that power to a degree which in beneficial returns exceeds the costs of restoration has definite economic justification and beneficial consequences. There can be little question as to the essentiality of steps to conserve the social values of such lands. The only question

is whether such action by public agencies would handicap private enterprise or benefit it. If the preponderant facts indicate that private enterprise would not be handicapped, but instead benefited, little argument remains against enlarged public ownership of lands in this classification.

With limited exceptions, individual or private action is wholly contingent upon the existence of a sufficient profit incentive. Where that is absent private enterprise quickly abandons the obligations of ownership. There is much forest land where the profit incentive is so obviously lacking, or is of such small degree, that the probability of successful private action in forest-land management may be dismissed from consideration. But while the monetary returns from such lands may not be sufficient to inspire continued private ownership the products of such lands if publicly administered will permanently contribute to the support of wood-using industries which by their successful and continuous operation will provide markets for the products of private forest lands and thus promote the practice of forestry to a degree not otherwise practicable. It may be the best economic doctrine for the public to assume the task of forest regeneration, leaving to private initiative the more practicable functions of harvesting, transporting, manufacturing, and merchandising the forest products. In general, the function of redeeming denuded forest lands and of carrying young stands of timber to economic maturity will be assumed by private enterprise under only the most favorable circumstances, and its assumption by the public under any other circumstances helps rather than handicaps private forestry. There is no significant competition between public and private enterprise in this field of forestry.

ACQUISITION OF LANDS SUPPORTING MERCHANTABLE TIMBER

If the 552 billion board feet of saw timber on the national forests, the 53 billion feet on other Federal lands, the 42 billion on State forests and the 32 billion feet on the Indian reservations administered by the United States on behalf of the Indians, or any substantial part thereof, were now in private ownership, the conditions of the lumber industry and of forestry generally would be much worse than they are. Current facts make it clearly evident that the initiation of a program of public retention and acquisition of forest-productive lands was highly beneficial not only to the public but also the timber industry and the individual owner of forest land. Instead of reacting adversely against the best economic interests of States and industries, the policy has, in large degree, safeguarded such interests. The present question is not of its possible curtailment but of the necessity for its considerable enlargement.

The forest situation in the United States presents a striking economic anomaly—a surplus of privately-owned timber in a country which faces a possible deficiency of future timber supply. If, during the past 40 years, the Federal Government had parted title with only that part of its timbered lands actually needed to supply current timber requirements, a major cause of the present wasteful depletion of forest lands and resources would not now exist.

But liberal public-land laws permitted private acquisition of areas of heavily timbered lands vastly in excess of current and immediately

prospective timber requirements and thus vested in private ownership considerable areas of heavily timbered lands for whose products there is no economic necessity either at present nor within the next decade or more. The time will arrive when such timber will be indispensable to economic and social welfare and all considerations of public interest dictate that it shall be preserved from wasteful exploitation until that time, but at present the tendency of all but a small minority of the present owners of such timber is to follow a policy of quick liquidation notwithstanding the obvious fact that such a policy is uneconomic and against the highest public and private interest.

Just prior to the beginning of the century the belief prevailed that the timber requirements of the Nation would soon equal and shortly thereafter exceed the total available supply. In such circumstances large increases in stumpage values seemed inevitable. Nevertheless, stumpage then was relatively cheap and large areas of heavily timbered public land were easily obtainable at trifling expense. Costs of ownership were low. In consequence, a tremendous wave of private acquisition of timbered lands developed and continued for a decade or more. Single ownerships embraced scores and hundreds of thousands of acres of the finest timber on the continent. In general, the movement was motivated by speculative considerations.

The ensuing financial situation offered many opportunities to capitalize stumpage values which by force of other circumstances tended to increase with each passing year. Timber bonds were readily salable, loans readily obtainable. Invested capital demanded current returns. Meanwhile costs of State and county government not only increased but multiplied as need arose for more and better highways, schools, public buildings, and other forms of public service. Year by year the capital investment in the properties not only increased but more incessantly demanded at least partial liquidation. To accomplish that, mills, logging railroads, and other facilities for manufacture were imperative, these in turn adding largely to the capital investments pressing for current returns. As the invested value per unit of stumpage increased, its more effective protection against destruction by fire, disease, insects, etc., demanded heavier annual outlays. Through these several circumstances private forest ownership has tended in some sections to assume the proportions of an inverted pyramid, with no greater degree of stability and no greater assurance against eventual collapse. Getting the money out of the trees and into the bank seemed the one feasible method by which collapse could be averted. But to accomplish that a market for the timber was absolutely essential and demand was smaller than temporary supply.

The situation described, has in substantial measure now run its course. It was least acute in the New England States and the Appalachian region. In the southern pine region it has gone so far that the remaining timber stands are not greatly in excess of operating requirements, and to some degree a reaction has set in favorable to a new order of private forest-land management based on small capital investments in well stocked second-growth lands. In the Lake States the cycle is so nearly complete that the forest problem largely is one of regenerating cut-over lands, generally as a public function but with limited participation by private agencies such as the pulp and paper manufacturers whose large fixed investments will justify substantial

outlays in forest-land management. In the southern Rocky Mountain region the smaller extent and wider distribution of ownerships and their relation to other industrial uses has tended to minimize the condition described. In Idaho, Montana, California, Oregon, and Washington, the States now containing the largest proportion of mature timber, the cycle is just now approaching its most acute stage, creating a situation which constitutes a real threat to the economic integrity of the lumber industry, to the States concerned, and to that part of the national interest dependent upon assured sources of timber supply and proper safeguarding of watersheds. While the timber is situated in the five States mentioned, the consequences of its enforced liquidation adversely affect all of the forest lands of the Nation. So long as Douglas fir can be delivered on the Atlantic seaboard at sacrifice prices, it will be difficult profitably to practice forestry on the white pine lands of New England or the short leaf pine lands of the Southern States. Under prevailing conditions timber products flow into any point of demand, and overproduction in any section of the country adds to a reservoir of manufactured timber which threatens to overflow economic safeguards.

Existing mills and operating properties are more than adequate to supply all current and immediately prospective timber needs. But the nonoperating properties represent large investments of capital, increased each year by current outlays for protection charges, taxes, and other costs of ownership. Furthermore, many of them are subject to outstanding bonded obligations representing large proportions of their appraised values, and interest charges must be met or foreclosure will result. In such circumstances the investment per unit of stumpage increases with rather alarming rapidity, and threatens within a relatively few years to exceed the probable realizable value of the stumpage. Owners assume or think that prompt liquidation is dictated. The historic and frequently only available method of liquidation is the operation of the timber. This means new sawmills added to already excessive mill capacity, new logging railroads in territories already containing too many, new lumber production added to a stream already overflowing all demand.

To secure a share of the business the owners of such properties must cut prices. In order to cut prices they also must cut costs. To cut costs the common although wholly mistaken practice is to forget all of the elements of good forest management and abandon all idea of maintaining the productive power of the land. Faced with the new competition other operators in the region similarly tend to cut prices and costs with the same consequences to the future values of the forest lands. Ultimately, the timber products of the new operation and its established local competitors, by reason of sacrifice prices, cheap water-freight rates and other factors, overflow the markets of remote sections, and immediately the timberland owners within or tributary to those sections correspondingly tend to cut prices and costs and to similarly abandon the idea of conserving the timber-productive values of their properties or conducting their operations on a sustained yield basis. The vicious cycle set in motion by the financial stress of new and economically unnecessary operations finally influences the future destiny of a major part of all the forest lands of the Nation.

It might be, and frequently is, reasoned that the owners of properties such as described should suffer the consequences of their own poor financial judgment; that it is no part of the function or obligation of the public to take over such properties and permit the owners to retrieve their unsound investments. If only the property owners were involved, this reasoning would be correct. However, the interests of the owners may become wholly insignificant as compared to the train of adverse circumstances set in motion by their attempts to salvage their investments. The ultimate economic consequences deserve serious consideration in such situations.

On the basis of sound social economy, timber for which there is no immediate need should be withheld from rather than forced into destructive competition. Its current operation seriously aggravates an already critical situation. In another quarter century the stumpage might conceivably do much to alleviate a different type of critical situation—one caused by a real deficiency of timber supply. However, the owners could not be compelled or expected to retain the timber uncut for that period of time except under a definite guarantee that through tax relief, fixed prices, bonuses of public money or otherwise, they would be compensated for all costs of ownership during the intervening period plus a proper return upon invested capital and managerial control.

In the circumstances described, it might be the highest public economy to take over the holdings subject to premature and uneconomic exploitation, establish them as public forests to be controlled and managed by appropriate public agencies, and hold the timber they support until its utilization is dictated by sound economic considerations. In this way the forest resources would be preserved from destruction, a large amount of capital would be kept available for other needs instead of being invested in unnecessary mills, railroads, and other manufacturing facilities, established lumber manufacturers would not be threatened with or actually thrown into insolvency, their forest lands would not be so destructively logged, and remote owners of forest lands sincerely endeavoring to practice forestry and maintain the productive power of their properties would not have their efforts nullified by forms of sacrifice competition they could not meet.

Such properties cannot be expropriated or taken over without equitable compensation to the owners. But such compensations should be based upon factual and actuarial determinations of sound investment values in the light of probable future trends in demand and value—not on the basis of unprofitable and possibly unwise investments which may have been made therein, nor on that of earlier standards of valuation which have markedly been modified by recent and prospective price trends. It should not be the purpose of a public forest-land acquisition policy to recoup the losses of timberland investors. If conducted under the principles herein proposed, the public acquisition of properties such as herein discussed would not comprehend a wastage of public funds. Consistently managed, with utilization deferred until need therefor actually existed, and barring unforeseen calamities from fire or disease or insects or windthrow, the property should return to the public treasury the full costs of its acquisition and management. Meanwhile, in offset to taxes, it would be contributing to many social needs and rendering many forms of bene-

ficial public service, not always susceptible of valuation in monetary terms or financial revenues but nevertheless distinct and of great public importance.

Aside from minor economies in production costs, financial returns from private forest properties of the kinds under consideration can be realized only by larger sales of products or by high returns per unit of product. Considering collectively the States of California, Oregon, Washington, Idaho, and Montana, larger sales would be possible only with demands for timber greater than those which can now be foreseen. If Pacific coast stumpage is pressing inexorably for liquidation at the rate of 25 billion board feet per year and if total national lumber consumption does not exceed 30 to 35 billion board feet per year the impossibility of increasing financial returns by a greater volume of sales becomes obvious.

Private owners of timbered lands are subject to all the inexorable laws of financial economy. To maintain financial solvency the periodically realizable values produced by a forest property must at least equal the values consumed by the processes of production during the same period. In the case of private ownership intangible and abstract social values not translatable into monetary returns cannot figure in the equation, no matter how essential and important they may be to general public welfare. Costs of ownership and production must be met by cash outlays and therefore must be offset by cash returns. In simple terms, the owners of large timbered holdings pressing for liquidation must reduce the costs of ownership or increase the financial returns of ownership if they are to avoid the wreckage of their properties, or bankruptcy.

New principles of forest utilization now in course of development and application promise substantial increases in net returns and markedly improved conditions for permanent forest practice. To the extent they prove to be practicable they will aid greatly to relieve the situation. In situations where such principles of utilization are inapplicable and where financial adjustments cannot be worked out under private ownership public participation is essential to the conservation of the economic and social values involved. Reduced to its elementary form, the solution of the problem presented by certain types of private forest ownership will lie in the willingness of the people of the United States to assume a larger part of the costs of such forest conservation either by relieving the private owner of a larger part of the costs of maintaining the property in a fully productive state, or by paying more for the commodities of the forests thus conserved, or by taking over the ownership and control of that portion of the unexploited forest area which, in the public interest, should be withheld from industrial exploitation until needed to meet actual public requirements, or by public regulation, which may have to be accomplished by provisions for expropriations.

Public contribution to decreased costs might take several forms. With the support of public credit properties might be refinanced at lower rates of interest with consequent reduction of financial pressure. The public might assume a larger share of protecting existing values against destruction by fire, disease, and insects. The public might underwrite a system of forest insurance under which the risk of forest-land ownership would be appreciably diminished. The public might grant partial exemption from annual taxes. None of

these courses could be followed without substantial outlays of public funds or losses of public revenues.

The public also could increase the financial returns to the private owner of timberland. It could, for example, pay a bonus on lands managed in conformity with prescribed standards or principles. It could rebate taxes previously paid on such lands. Most practical of all, it could pay higher unit prices for the lumber and other timber products which it consumes and thus make it possible for the producers thereof more effectively to meet the true requirements of forest conservation.

The first question presented by this latter proposal is that of ways and means. So long as the products of the forest are subject to the free play of the laws of supply and demand, and so long as a surplus of forest products is competing for a limited market, and so long as the timberland owners believe themselves to be driven by financial necessity to liquidate regardless of the ultimate effect upon their forest properties or financial status, no way exists through which the public can be compelled to pay a greater share of the costs of adequate forest management, except by a modification of existing laws through which production could be controlled and correlated with demand, and the depressing effect of unrestrained competition upon unit prices could be averted.

Otherwise the better the market, the more existing mills are brought into maximum production, the more new mills are promoted. In such circumstances higher unit prices for timber commodities would not necessarily mean better forest management. Some definite and guaranteed correlation between production and consumption, stabilizing, and safeguarding the permanency and security of conservative forest management, would be an unavoidable essential.

Under American concepts of government and private enterprise it is quite natural to propose that the desired objective be attained by a compact or series of compacts between the timberland owners of the Nation, supported by State or possibly Federal regulatory powers and by State and Federal policies of public forest-land management and utilization. This would require drastic modification of existing public policies relating to combinations of industry or capital. Unless the compacts encompassed all large timber holdings, both operative and inoperative, each price advance would be merely an incentive to the installation of additional mill capacity and the operation of additional blocks of timber. No compact among timberland owners could be successfully maintained unless it embraced all actual and potential owners of such lands, and was susceptible of effective enforcement by legal processes. It would require new machinery for supervision and control. To be effective it would mean large increases in the costs of the lumber and other timber products consumed by the American people.

As an alternative to the adjustment of the present chaotic condition of the lumber industry by a program of controlled production leading to the establishment of higher prices per unit of timber product, thus endowing timberland owners with greater financial power to properly manage and utilize their properties, consideration properly may be given to the question of whether public acquisition of certain forest areas may not be the most equitable method by which

the public may participate in the needful processes of forest conservation as related to such areas. By payment of higher prices the consuming public would create conditions more favorable to forest conservation, but it would not by that process be in a position to definitely dictate and enforce the minimum requirements of sound forest-land management, except by enactment of regulatory legislation, and the establishment of the necessary processes and machinery for its enforcement.

If the public must, in fact, contribute more fully toward the maintenance of acceptable conditions on forest lands now in private ownership, the preferable alternative might be for the public to take over, control, and manage the parts of the privately owned timberlands which by the menace of their actual or potential utilization cause the chaotic condition now prevailing in the lumber industry and the consequent antisocial waste and wreckage of natural values. By such a course the public would secure definite values in return for its cash outlays; would create by administrative action rather than new and only partially tested regulatory power the conditions essential to national security and progress, and would derive and enjoy the concrete social benefits and financial returns ultimately obtainable from the properties thus acquired.

The best data available show that of the total estimated stand of saw-timber in the United States, 79 percent is in the Pacific coast, northern Rocky Mountain and southern Rocky Mountain regions. The Pacific coast and northern Rocky Mountain regions alone contain 71 percent of the total stand. It is these regions primarily that are responsible for the overproduction of lumber which tends so strongly to disrupt normal processes of forest utilization and management, not only within their limits but nationally. The reason is not far to seek. Over 47 percent of the timber supply in these three western regions, 618 billion board feet exclusive of that in farm wood lots, is in private ownership. This is 20 times or more the normal annual consumption of the entire Nation.

In recent extensive studies made by the Forest Service, the stumpage in the western regions was classified into three zones, on the basis of 5-year average costs of conversion or manufacture and average selling prices for the products. The 5-year periods were from 1925 to 1929 in some instances; 1926 to 1930 in others. Zone 1 included the timber that on the bases indicated could be milled at a profit of 1 cent or more per thousand board feet; zone 2, the timber which could only be operated at a loss of from 1 cent to \$5 per thousand feet; and zone 3, the timber where the operating loss would exceed \$5 per thousand feet. On these bases, the privately owned timber in the Pacific coast, northern Rocky Mountain, and southern Rocky Mountain regions divides as follows: Zone 1, 373,568,000,000 feet; zone 2, 172,067,000,000 feet; zone 3, 99,514,000,000 feet. Considering California, Oregon, Washington, Idaho, and Montana, collectively, but excluding inferior species such as larch and fir for which there is but a limited demand, and excluding also, except in California, the private timber in farm wood lots, the timber in private ownership is classified as follows: Zone 1, 338,023,000,000 feet; zone 2, 155,953,000,000 feet, and zone 3, 85,749,000,000 feet; a total private holding of 579,725,000,000 board feet in the five States.

The greatest probabilities of early exploitation are of course, in zone 1, but under the stress of inescapable fixed charges operations also are conducted in zone 2, the stumpage absorbing the operating deficits. Zone 3 is largely safeguarded against early exploitation by the large margin of loss per thousand board feet. However, new developments such as new transportation facilities may modify the classification by throwing areas into zone 1 or zone 2. Moreover, since all of the land is subject to all costs of private ownership a given tract of timber even though it is not subject to profitable operation may by the burdens of its ownership compel the liquidation of more accessible stumpage to meet current costs.

In the circumstances described, public acquisition of heavily timbered lands, rather than being detrimental to private forestry, is one of the most practicable means by which private forestry can be placed upon a sound and stable foundation. Since the power of eminent domain is rarely exercised in forest acquisition programs and considerations allowed are held strictly to current market prices, the public would acquire only those lands which private agencies were indisposed or unable to carry until the utilization of their timber values was dictated by sound economic considerations. The policy therefore would be one of relief to private forestry rather than one of negation. Considering the nature and location of existing and proposed public forests, the public programs of acquisition largely would involve timbered lands in zone 3, the zone within which private operation is, and for some time will be, least practicable. Relieved of the burden of zone 3 properties, private operators would be in a far better position to manage their zone 1 and zone 2 holdings in conformity with good forest practices and sound economic principles.

PUBLIC AGENCIES ENGAGED IN THE ACQUISITION OF FOREST LANDS

Municipal acquisition of forest lands ordinarily is motivated by one or both of two purposes: The protection of the municipal watershed or the provision of areas within which the citizens can engage in various forms of outdoor recreation. In few cases is the municipally owned forest regarded primarily as a source of timber supply or of income from the sale of timber products; although frequently, as proved in European countries, it has large potentialities along those lines. In recent years, notably in New England, there has been a growing interest in "town forests" with increased emphasis upon revenue production. While the movement seems destined to grow in scope and importance as time goes on, it has not thus far attained large dimensions nor gained general recognition.

Similarly, in the instances where forest lands have been purchased by counties, or secured through exchanges of other county lands or resources, the element of public recreation has been prominent and though designated as forests the lands largely perform the functions of parks. Since tax-delinquent lands in many States revert in the county, only the heavily populated counties containing lands of high value and little subject to tax reversion hitherto have found it necessary to make appreciable purchases of forest lands to promote their programs. In few instances have the possibilities of well-managed forest lands as sources of permanent county income received construc-

tive recognition; due probably to the fact that new standards of public improvement and service have drawn heavily on county finances, leaving little for types of investment that could be deferred. In counties largely comprising forest lands, the depletion of the timber values and consequent reduction of tax income to the county has tended to preclude any constructive action by the county. The number of counties systematically developing productive county forests will progressively increase, but neither in number nor in total acreage acquired will they be major factors in a program of public forestry in the near future.

The States are the smallest units of government, with rare exceptions, which have definitely formulated plans and programs of forest-land acquisition; and only a minority of the States offer present promise of carrying such programs into effective execution on any considerable scale. States which still retain large areas of public land granted by the Federal Government, and States containing large areas which have reverted to public ownership through tax delinquency, or which promise to so revert in course of time, do not need to devote part of their financial or other resources to the acquisition of additional lands upon which to initiate the processes of forest management; their chief problem is to make available the means with which to redeem the obligation imposed by present holdings or the involuntary accessions through tax reversion. In such States acquisition of additional lands by purchase, exchange, or donation will be important only as a means of creating better conditions of management and administration through the elimination of private holdings within units of management, or by the extension of unit boundaries to more logical limits of administration. In this category may properly be placed all States in the Lake, northern Rocky Mountain, south Rocky Mountain, and Pacific coast regions, and some of the States in the southeastern region.

So far as the next decade or so is concerned, the probability of extensive State programs of forest-land acquisition by cash purchase, exchange, or the solicitation of donations is strong only in the New England, Middle Atlantic, and Central regions, plus one or two States in the southeastern region. These groups of States now have little or no land granted by the Federal Government. Their populations are dense, their per capita wealth large, their lands possess sufficient economic values to warrant continued private ownership and tax payment, hence tax reversion is at a minimum. The social and economic importance of forests is widely recognized and State policies and programs of forest conservation are of longest standing and greatest permanency. Due to these circumstances these States offer greatest promise of progressively developing and expanding their State forest systems by systematic acquisition of the essential lands.

State principles and procedures of acquisition are not greatly dissimilar to those of the Federal Government. In each case sound and conservative principles of land valuation and appraisal are developed and adhered to. Purchases are confined to specifically defined areas established wholly on the bases of public value and necessity. Provision normally is made for executive or legislative supervision and control of purchases so as to avert any misuse of either public power or public funds. The net result has been to place in State ownership

certain forest properties of major importance to public welfare, with clear and unencumbered titles and at costs safely within sound limits of actual monetary value. The section "State Accomplishments and Plans" so fully covers the subject of State holdings that their discussion here is unnecessary.

As is quite natural, the Federal program of acquisition through purchase, exchange, or donation thus far has developed with greatest rapidity and has attained the greatest present and prospective dimensions. It actually has been carried out in some degree in all of the 31 States containing national forests and should eventually extend to several more. Collectively it represents the largest area and investment of public funds to date and prospectively. Its continuous operation over a period of 21 years has served to stabilize the principles and policies by which it is directed and controlled. There has been a more systematic collection and recordation of factual data, making available detailed statistical information. Due to these several circumstances it is both feasible and desirable to discuss the Federal acquisition program in greater detail than is possible in relation to State, county, and municipal programs.

PRESENT PURPOSES AND OBJECTIVES OF FEDERAL ACQUISITION PROGRAM

Where national interests are concerned, and under prevailing public policies, the control and management of certain forested areas is properly a Federal function, and if the lands involved are not in public ownership and control, their acquisition is an essential prerequisite to effective Federal action. For example, the policy of Federal cooperation in protection of the watersheds of navigable streams and stimulation of timber production east of the Great Plains was almost wholly dependent upon Federal acquisition through cash purchase of the areas essential to the consummation of the project. In other words, in certain parts of the United States the Federal function of watershed and forest protection necessitates a broad program of land acquisition.

Unless it is complete and comprehensive, Federal ownership within any given area fails in some degree of its purpose, is less efficient, and more expensive. Privately owned lands interspersed among or contiguous to the Federal lands add greatly to costs of protection and seriously interfere with processes of utilization and management necessary to realize the full public values of the public properties. Lands owned by persons who will not cooperate in essential programs of forest protection against fire, insects, or disease markedly diminish the effectiveness and increase the costs of such protective measures. Lands which control access to and consequently the utilization of publicly owned natural resources frequently increase the costs and difficulties of such utilization or create undesirable monopolies. Where natural units of timber operation are characterized by diverse ownerships and conflicting plans or policies of use and management, it is impossible to manage the public properties as efficiently and economically as would be the case were the unit wholly in public ownership.

The present purposes and objectives of the Federal acquisition program, therefore, are (1) to create conditions most favorable for

the redemption of Federal responsibilities within areas in other than Federal ownership and (2) to round out and consolidate existing Federal holdings in established national-forest units so as to promote their most efficient and economical protection and management and the highest degree of industrial and social use.

CONSIDERATIONS GOVERNING FEDERAL ACQUISITION PROGRAM

EFFECT OF FINANCIAL INTEGRITY OF COUNTIES INVOLVED

Lands in Federal ownership are not subject to taxation. The act of May 23, 1908 (35 Stat. 260), provides that one fourth of the gross revenues derived from sales of national-forest products or occupancy of areas shall be paid to the States for distribution to the counties containing national forests; but where all currently realizable commercial values have been removed from the land prior to its acquisition, as is frequently the case, there may be little or no current revenue until new crops of timber have been produced. In the interim the income received by the county may not adequately replace the taxes previously paid. In consequence the Federal Government, in all of its forest-land-acquisition program, must give careful consideration to the degree to which the acquisition of a given area will affect the financial and political integrity of the county or counties in which that area is situated.

In some instances it is so evident that the lands will revert to public ownership through tax delinquency and thereafter cease to contribute anything in the way of taxes that the county officials interpose no objection to their acquisition by the United States. In other instances the availability of the national-forest stumpage to be granted in exchange for the private lands may make possible the continued operation of a logging enterprise and furnish greater opportunity for employment and industry than otherwise would be the case; in which circumstance the county officials may endorse and support the transaction.

In other instances the increased net acreage in Federal control within a given county will permit it to share more generously in the receipts from the national forest or to qualify for an increased proportion of Federal aid in road and trail construction and thus offset, at least in part, the taxes which would be collected if the land continued in private ownership. Frequently enlarged participation by the United States in forest protection and development is regarded as offsetting possible losses of taxes. If, however, these considerations do not prevail, if it is evident that beyond a certain point acquisition by the United States would be inimical to the financial and political integrity of the local unit of government, limitations are established which will obviate such results. In some instances maximum limitations of area are agreed upon by the county, State, and Federal agencies and thereafter govern the Federal acquisition program within the particular region. Occasionally, as a means of safeguarding the integrity of agricultural communities, specifically defined areas within the exterior boundaries of the national forest or purchase unit are eliminated therefrom so as to obviate the possibility of their purchase. In other words, the acquisition program always is influenced by considerations of county interest. Where an exchange of

any magnitude is pending consideration, the officials of the county concerned are afforded opportunity to informally indicate whether such exchange would be adverse to the welfare of the county, and if they make such a showing, the exchange is either modified or abandoned.

EFFECT ON EXISTING OR CONTEMPLATED STATE OR COUNTY FOREST PROGRAM

The Federal forest land acquisition program lacks any element of competition with similar programs of other political jurisdictions. Where State or county initiative reasonably is meeting the requirement of forest conservation or has definite future plans to do so, action by the Federal Government is, of course, unnecessary. In the formulation of the Federal program the effect on existing or contemplated State or county forest programs is therefore a major consideration; and where there is reason to believe that the inauguration of a Federal program of purchase would militate against an actual or contemplated State or county program, the Federal plan is appropriately modified. Usually there is no conflict except where the same lands are involved in both or several programs. Mere adjacency or or contiguity of State and Federal forest holdings is not an adverse but rather a favorable feature since it permits of better coordination and the various economies obtainable through cooperation. Many national forests adjoin and in some instances surround State forest units without appreciable detriment to the management of either property.

EFFECT ON ACTUAL OR PROBABLE PRIVATE MANAGEMENT OF FOREST PROPERTIES

Every public forest policy thus far evolved places the major dependence upon private initiative for future timber supplies and satisfactory management of forest lands. A program of forest-land acquisition which would minimize or defeat the fullest practical measure of private forest management therefore would be against the public interest, and any feature of the Federal acquisition program which would have that effect is either modified or abandoned.

METHODS BY WHICH FEDERAL GOVERNMENT CAN ACQUIRE FOREST LANDS

LAND EXCHANGES

The first legislative provision for the public acquisition of privately owned lands within national forests was the ill-famed forest-lieu selection provision of the act of June 4, 1897 (30 Stat. 11, 56), which had two major purposes: (1) to enable the private landowner to escape the assumed restrictions of a federally managed reservation, and (2) to promote the more efficient and economical administration of such reservations. The idea was good; the provisions for its enforcement wholly bad. The Secretary of the Interior was given no administrative discretion, no authority to withhold approval of selections involving disproportionate values. The law permitted owners of lands within national forests to do certain things and naturally the owners took advantage of it. The Secretary of the Interior could not deny landowners the right to do what the law allowed; even where he knew that the lands reconveyed to the United States were practically

worthless and the lands selected in lieu thereof the finest and most valuable timberlands remaining in public ownership. The Federal departments could only protest against the law and urge its repeal, which finally was accomplished by the act of March 3, 1903 (33 Stat. 1246).

Because of the unsavory record of the Forest Lieu Selection Act, Congress naturally looked askance at any and all ensuing proposals to acquire privately owned lands by grants of other public resources or by cash payments. It was not until March 13, 1908, that the first national forest land exchange law was enacted; that relating only to the Crow Creek National Forest, Wyo. February 18, 1909, an act was approved permitting selections of unreserved public lands for private lands in the Calaveras Big Tree groves in California; and on February 28, 1911, another act authorized consolidations through exchanges in the Kansas National Forest in the State of that name. The act of March 4, 1911, authorizing exchanges within national forests in the State of Oregon was the first land-exchange measure of more or less general application. Other acts followed in quick succession until at present there are on the statute books a total of 56 acts of more or less general application and 13 which authorize exchanges with specifically named private owners or of specifically described lands. The date, statutory citation, field of operation, and major provisions of each of these acts are shown in table 1.

The fundamental difference between the objectionable Forest Lieu Selection Act and the various acts listed in table 1 is that the latter are all wholly in the discretion of the Secretary of the Interior and/or the Secretary of Agriculture and are operative only upon affirmative showing that a given exchange is definitely in the public interest and will vest in public ownership values at least as great as those granted in exchange. They do not endow the private landowner with any legal right or power to demand or compel an exchange nor do they sanction exchanges purely or primarily for the convenience of the private landowner. There must in each case be a demonstrable and dominant public purpose and benefit.

TABLE 1.—*Acts of Congress authorizing exchanges within the various national forests, Aug. 15, 1932*

Date of act	Forest	Authorizes—
Mar. 13, 1908 (35 Stat. 43)-----	Crow Creek National Forest.	Land in national forest for public domain military maneuvers, Wyoming.
Feb. 18, 1909 (35 Stat. 626)-----	Calaveras Big Trees.	Lands in forest for public domain.
Feb. 28, 1911 (36 Stat. 960)-----	Kansas-----	Lands within equal area and value. (All reconveyed.)
Mar. 4, 1911 (36 Stat. 1357)-----	National forests within Oregon.	Lands within.
May 7, 1912 (37 Stat. 108)-----	Calaveras Big Trees.	Do.
July 25, 1912 (37 Stat. 200)-----	Paulina-----	Lands within equal area and value.
Aug. 22, 1912 (37 Stat. 323)-----	Pecos, Zuni-----	Timber Pecos for timber and land Zuni. (Santa Barbara Pole & Tie Co.)
July 31, 1912 (37 Stat. 241)-----	State of Michigan--	State lands equal area and value. (Either outside or within national forests.)
Apr. 16, 1914 (38 Stat. 345)-----	Sierra-Stanislaus--	Timber and land for land within Yosemite National Park.
May 13, 1914 (38 Stat. 376)-----	Sierra-----	Lands within equal area and value.
June 24, 1914 (38 Stat. 387)-----	Ochoco-----	Do.
Sept. 8, 1916 (39 Stat. 852)-----	Whitman-----	Land within for timber in or near national forest.
July 3, 1916 (39 Stat. 344)-----	Florida-----	Equal value.
Sept. 8, 1916 (39 Stat. 846)-----	Oregon-----	Do.
Mar. 3, 1917 (39 Stat. 1122)-----	National forests in Montana.	Timber selected in national forests.
Mar. 4, 1921 (41 Stat. 1364)-----	Carson-----	Land for equal value land or timber in forest.

TABLE 1.—*Acts of Congress authorizing exchanges within the various national forests, Aug. 15, 1932—Continued*

Date of act	Forest	Authorizes—
Feb. 27, 1921 (41 Stat. 1148)-----	Montezuma-----	Equal value land for land or timber in forest or on 320 acres adjoining.
June 5, 1920 (41 Stat. 980)-----	Sierra-----	Equal value land for land or timber in forest.
Mar. 4, 1921 (41 Stat. 1366)-----	Rainier-----	Do.
June 5, 1920 (41 Stat. 986)-----	Harney-----	Land equal value.
May 20, 1920 (41 Stat. 605)-----	Oregon-----	Land for land, equal value, or timber within forest
Feb. 2, 1922 (42 Stat. 362)-----	Deschutes-----	Lands within 6 miles or in forest for lands or timber in any Oregon forests.
Mar. 20, 1922 (42 Stat. 465)-----	All-----	General Exchange Act. Land for land or timber in national forest, equal value.
Mar. 8, 1922 (42 Stat. 416)-----	Malheur-----	Land for land or timber in forest, equal area.
Sept. 22, 1922 (42 Stat. 1036)-----	Wenatchee, Olympic, Snoqualmie.	Lands outside for lands or timber within, equal value.
Dec. 20, 1921 (42 Stat. 350)-----	Rainier-----	Lands for land or timber within forest, equal value.
Feb. 14, 1923 (42 Stat. 1245)-----	Lincoln-----	Lands in forest for lands outside, equal value.
Sept. 22, 1922 (42 Stat. 1017)-----	All-----	Land deeded to United States under act June 4, 1897, base of new selections outside forests.
Sept. 22, 1922 (42 Stat. 1018)-----	State of Idaho-----	School lands in forests for certain lands outside.
Mar. 3, 1925 (43 Stat. 1117)-----	Custer-----	Reservation coal offered lands.
Feb. 20, 1925 (43 Stat. 952)-----	Plumas, Eldorado, Stanislaus, Shasta, Tahoe.	Lands outside national forests for lands or timber within, equal value.
Feb. 28, 1925 (43 Stat. 1079)-----	Mount Hood-----	Do.
Mar. 4, 1925 (43 Stat. 1279)-----	Umatilla, Wallowa, Whitman.	Lands outside national forest for lands or timber under act Mar. 20, 1922.
Feb. 28, 1925 (43 Stat. 1090)-----	All-----	Reservation of mineral timber, etc., under act Mar. 20, 1922.
June 7, 1924 (43 Stat. 643)-----	Forests in New Mexico.	Private lands in Las Trampas grant for timber of equal value in any forest in New Mexico.
Jan. 12, 1925 (43 Stat. 739)-----	do-----	Private lands in Santa Barbara grant for timber of equal value in any forest in New Mexico.
Feb. 28, 1925 (43 Stat. 1074)-----	Snoqualmie-----	Lands outside for lands or timber within forest under act Mar. 20, 1922.
Mar. 3, 1925 (43 Stat. 1215)-----	All-----	Provisions of General Exchange Act extended to lands acquired under Weeks law.
Mar. 4, 1925 (43 Stat. 1282)-----	Whitman-----	Lands outside for land or timber within forest under act Mar. 20, 1922.
Apr. 21, 1926 (44 Stat. 303)-----	All forests in New Mexico and Arizona.	Lands within Mora grant for lands or timber within forests.
May 26, 1926 (44 Stat. 655)-----	Absaroka, Gallatin.	Private lands within for lands or timber within forests.
June 15, 1926 (44 Stat. 746)-----	National forests in New Mexico.	State-owned lands within forests for lands in forests or public domain.
Mar. 3, 1927 (44 Stat. 1378)-----	Arapaho-----	Lands outside for national forest land or timber.
Mar. 4, 1927 (44 Stat. 1412)-----	Colville-----	Do.
Feb. 15, 1927 (44 Stat. 1099)-----	Black Hills and Harney.	Lands within 5 miles for national forest land or timber, in forests named.
Mar. 2, 1927 (44 Stat. 1262)-----	State of Oregon-----	Select revested Oregon & California R.R. land in lieu school sections in national forests.
Apr. 16, 1928 (45 Stat. 431)-----	Carson, Manzano, Santa Fe.	Lands within private land grants.
Apr. 23, 1928 (45 Stat. 450)-----	Crater-----	Lands within 6 miles of national forest.
Apr. 10, 1928 (45 Stat. 415)-----	Challis, Sawtooth.	Certain described lands outside national forests.
Mar. 26, 1928 (45 Stat. 370)-----	Manti-----	Lands outside national forests.
May 17, 1928 (45 Stat. 598)-----	Missoula-----	Certain described lands outside national forests.
Jan. 30, 1929 (45 Stat. 1145)-----	Montana-----	Lands within 6 miles of national forests.
Feb. 7, 1929 (45 Stat. 1154)-----	Lincoln-----	Lands within national forests for public domain.
May 14, 1930 (46 Stat. 278)-----	Fremont-----	Lands in certain described townships outside national forest.
Feb. 25, 1932 (47 Stat. 55)-----	Cache-----	Certain described lands outside national forest.
June 30, 1932 (47 Stat. 451)-----	Siuslaw-----	Extended to lands in T. 12 S., R. 6 and 7 W.

ACTS AUTHORIZING EXCHANGES WITH PRIVATE PARTIES

July 15, 1912 (37 Stat. 192)-----	Black Hills, Harney.	John L. Baird.
May 14, 1914 (38 Stat. 377)-----	Cache-----	Joseph Hodges.
July 28, 1914 (38 Stat. 556)-----	Fishlake-----	Salina Land & Grazing Co.
Feb. 17, 1917 (39 Stat. 922)-----	Cache-----	Aquila Nebeker.
July 3, 1916 (39 Stat. 350)-----	Powell, Sevier-----	John L. Sevy.
Feb. 28, 1919 (40 Stat. 1204)-----	Cache-----	Jas. E. Hauser, Wm. H. Stewart, Isaac P. Stewart.
Feb. 28, 1919 (40 Stat. 1209)-----	do-----	C. Bolling, F. Zollinger, Jr., Conrad Alder, Robert Murdock.
June 4, 1920 (41 Stat. 757)-----	Colorado-----	John Zimmerman.
Jan. 7, 1921 (41 Stat. 1087)-----	Sevier-----	Henry Blackburn.
Feb. 7, 1921 (41 Stat. 1147)-----	San Isabel-----	A. A. Bruce.
Dec. 30, 1919 (41 Stat. 1455)-----	Powell, Sevier-----	Thomas Sevy.
Apr. 11, 1922 (42 Stat. 493)-----	Tahoe-----	William Kent.
Apr. 13, 1926 (44 Stat. 248)-----	Medicine Bow-----	Leo Sheep Co. Selected land outside.

A basic requirement of all the laws listed in table 1 is that the values revested in public ownership through exchange must be at least as great as the values relinquished by the public. To guarantee such result, careful and detailed examinations, cruises, and appraisals of both offered and selected properties or resources are made by qualified members of the Forest Service. The resulting reports, maps, and estimates of comparative values are then carefully reviewed and checked successively by the forest supervisor, the regional forester or his immediate assistants, and the forester or his immediate assistants, and no exchange is recommended to the Secretary of the Interior until all of these reviewing agencies are satisfied that in every respect and detail it fully meets the spirit and letter of the law under which it is being made. A further safeguard to public interest rests in the fact that practically all exchanges now consummated are made under laws which require that publicity be given to pending exchanges by advertisement in newspapers of general circulation within the counties in which the offered lands and the selected lands and/or stumpage are situated; so that each such exchange is a matter of common knowledge and subject to protest if any belief exists that it would be against public interest. Present legislative and administrative principles and procedures in national-forest land-exchange work thus completely eliminate any possibility that valuable public resources will pass into private ownership except under circumstances wholly in the public interest and at valuations equitable to the public.

CASH PURCHASES

By the time definite form was given to the policy of Federal acquisition of forest lands in the Eastern States for purposes of watershed protection, little remained in the way of Federally owned lands or timber resources within the territory involved. With negligible exceptions the lands essential to the program were privately owned, and could be acquired only by cash payments. The act of March 1, 1911, (36 Stat. 961), commonly known as the Weeks law, accordingly made and authorized appropriations to cover costs of purchase. Further appropriations later were authorized by the acts of April 30, 1928, and June 2, 1930. The record of total appropriations to date is as follows:

Fiscal year:

1910 (all reverted to Treasury) -----	\$1, 000, 000. 00
1911 (of which \$1,982,679.24 reverted to Treasury) -----	2, 000, 000. 00
1912 -----	2, 000, 000. 00
1913 -----	2, 000, 000. 00
1914 -----	2, 000, 000. 00
1915 -----	2, 000, 000. 00
1916 -----	None
1917 -----	3, 000, 000. 00
1918 -----	None
1919 -----	None
1920 -----	600, 000. 00
1921 -----	None
1922 -----	1, 000, 000. 00
1923 -----	450, 000. 00
1924 -----	450, 000. 00
1925 -----	818, 540. 00
1926 -----	1, 000, 000. 00
1927 -----	1, 000, 000. 00
1928 -----	1, 000, 000. 00

Fiscal year—Continued.

1928 (supplemental)-----	\$1, 000, 000. 00
1929-----	1, 000, 000. 00
1930-----	2, 000, 000. 00
1931-----	2, 000, 000. 00
1932 (of which \$300,000 reverted to Treasury)-----	2, 000, 000. 00
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Total appropriations-----	28, 318, 540. 00
Reverted to Treasury-----	3, 282, 679. 24
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Net appropriations-----	25, 035, 860. 76

For so important a project, careful control and supervision obviously was necessary. To provide it the Weeks Law created the National Forest Reservation Commission, in which was vested the power of final approval of land purchases under the act. The project involved three of the executive departments of the Government; the War Department which had control over navigable streams, the Department of the Interior which handled the public lands, and the Department of Agriculture which functioned for the Federal Government in matters relating to forestry. The Secretaries of these three Departments therefore were made ex-officio members of the Commission, the Secretary of War to be the President thereof.

The project also was of direct interest to the legislative branch of the Government, so that the law provided that two Senators designated by the President of the Senate and two Representatives designated by the Speaker of the House should also be members of the Commission. Through the Commission both the legislative and executive branches of the Government participate directly in the execution of the provisions of the act. No purchases of lands can be made until they have been approved by the Commission, which usually meets in formal session about twice each year but functions additionally by recess action based upon detailed memoranda. While authority to determine the areas within which purchases should be made is vested in the Secretary of Agriculture by the act of March 1, 1911, the practice is to present to the National Forest Reservation Commission all facts relating to a proposed purchase unit and to secure its assent and concurrence before initiating any negotiations for purchase within such unit. Under the established procedure all expenditures of funds for land purchases are carefully supervised and controlled, and confined strictly to the purposes of the basic laws.

One of the basic provisions of the Weeks Law (section 7) is—

That no deed or other instrument of conveyance shall be accepted or approved by the Secretary of Agriculture under this act until the legislature of the State in which the land lies shall have consented to the acquisition of such land by the United States * . * . *

The States thus have full power to decide whether or to what extent the Federal Government shall be allowed to purchase lands for national-forest purposes. The majority of the State acts of consent under which purchases are made contain no limitations, but several apply to only certain specified parts of the State, one prescribes a maximum area for the State, one a maximum area allowable within any single county, two require the concurrence of the county commissioners, State conservation commission, and State land boards. No national-forest purchase unit can be established nor purchases made therein except in conformity with the provisions of the State act of consent.

Following the establishment of a national-forest purchase unit, ownership of the lands embraced therein are determined and recorded. The willingness of the United States to receive and pass upon offers of sale is publicly announced, and persons desiring to offer their lands are furnished with printed forms upon which their proposals can be presented in detail. As they are received the proposals are carefully reviewed and if the proposed conditions of sale, including the price asked for the property, are deemed reasonable, a careful examination, cruise, and appraisal of the property is then made by a trained and experienced examiner. Values for soils and young growth are based upon values prevailing in local commercial practice as checked by comparisons with values established by earlier purchases in other older units. Stumpage values are worked out by determinations of utilization or conversion costs as against average sales prices of lumber or other products in the appropriate markets; and are checked against stumpage values established by earlier purchases in other comparable units. Standards or bases of valuation are checked periodically and revised as necessary. All details related to a given tract of land are combined in a single report, which is then reviewed and checked in turn by the forest supervisor, the regional forester or his immediate assistants, and the Forester or his immediate assistants. The acceptance of an option on an offered tract is not authorized until the reviewing officers are completely satisfied that the price demanded is conservative and equitable and the conditions of sale are wholly acceptable.

Upon receipt of an acceptable option the case is then ready for presentation to the Commission, each member thereof being furnished with a detailed digest of all facts as to the character of the offered land, timber volume, value, etc. All conditions of purchase, even minor reservations of negligible importance are brought to the attention of the Commission. If later title investigations disclose new conditions not previously approved by the Commission the case must be resubmitted and again approved before payment for the land can be made. All titles must be approved by the Attorney General prior to their acceptance. A member of the office of the Solicitor of the Department of Agriculture, and corps of title attorneys and abstractors working under his supervision, has charge of and full control over all features of the title work, independently of the Forest Service. The funds appropriated for the purchase of lands are disbursed under the supervision of the chief disbursing officer of the Department of Agriculture and, of course, the Comptroller General.

DONATIONS OF LANDS SUITABLE FOR NATIONAL FOREST PURPOSES

There are certain owners of forested or forest-productive lands who for sentimental reasons desire that such lands shall be fully conserved and safeguarded but who are unprepared to permanently bear the costs of properly protecting and managing such lands. There are others who are sincerely interested in promoting forest conservation and, as a step in that direction, are disposed to dedicate to public forest purposes lands from which they otherwise could derive some financial returns. There is another and rapidly growing class possessed of large areas of forest land, generally cut-over, but

occasionally bearing timber of commercial size and quality, but inaccessible, who cannot foresee any future private or public market for such land and are willing to donate it outright rather than allow it to go through the proplonged processes of tax reversion.

In such cases, if the lands are of such character and so situated as to make them valuable for national-forest purposes, donation to the United States can be accomplished under either of two acts now on the statute books. One is the act approved March 3, 1925 (43 Stat. 1133), which authorizes the Secretary of Agriculture to accept donations of land for any national-forest purpose. The other is the act of June 7, 1924 (43 Stat. 653), of which section 7 is as follows:

That to enable owners of lands chiefly valuable for the growing of timber crops to donate or devise such lands to the United States in order to assure future timber supplies for the agricultural and other industries of the State or for other national forest purposes, the Secretary of Agriculture is hereby authorized, in his discretion, to accept on behalf of the United States title to any such land so donated or devised, subject to such reservations by the donor of the present stand of merchantable timber or of mineral or other rights for a period not exceeding twenty years as the Secretary of Agriculture may find to be reasonable and not detrimental to the purposes of this section, and to pay out of any moneys appropriated for the general expenses of the Forest Service the cost of recording deeds or other expenses incident to the examination and acceptance of title. Any lands to which title is so accepted shall be in units of such size or so located as to be capable of economical administration as national forests either separately or jointly with other lands acquired under this section, or jointly with an existing national forest. All lands to which title is accepted under this section shall, upon acceptance of title, become national forest lands, subject to all laws applicable to lands acquired under the act of March 1, 1911 (36 Stat. 961) and amendments thereto. In the sale of timber from national forest lands acquired under this section preference shall be given to applicants who will furnish the products desired therefrom to meet the necessities of citizens of the United States engaged in agriculture in the States in which such national forest is situated: *Provided*, That all property, rights, easements, and benefits authorized by this section to be retained by or reserved to owners of lands donated or devised to the United States shall be subject to the tax laws of the States where such lands are located. (See also section 555, title 16, U.S. Code above.)

During the first several years these acts were in effect, donations were few in number and small in area; inspired mainly by sentimental considerations. But interest in this method of passing forest land to Federal ownership now is rapidly increasing and over 100,000 acres of timber productive land of good site quality recently have been conveyed to the United States. Present and prospective circumstances indicate that a large acreage of cut-over timberland will in time be donated for national-forest purposes without cost to the public other than the small charges for title adjustments and recordation.

DEVELOPMENT OF NATIONAL FOREST SYSTEM AND PRESENT STATUS

IN THE WESTERN PUBLIC LAND STATES

The policy of withdrawing for national-forest purposes unreserved and unappropriated public lands chiefly valuable for timber production and watershed protection was initiated by the act of March 3, 1891 (26 Stat. 1095), and accelerated by the act of June 4, 1897 (30 Stat. 11). As a result of the withdrawals made during the past four decades there are now in the western half of the United States 121 national-forest units embracing a gross area of 151,012,085 acres, of which 133,161,417 acres are in Federal ownership; the difference of

17,850,668 acres comprising lands in State, county, or private ownership.

Not all of the federally owned timber-bearing lands are in national forests. Considerable areas are in national parks. Lesser areas are embraced in national monuments and reclamation withdrawals. Lands formerly comprising parts of the grants to the Oregon & California Railroad Co. and the Coos Bay Wagon Road Co., which were revested in the United States under the act of June 9, 1916, aggregate nearly 2½ million acres chiefly valuable for timber production and streamflow protection. In addition to the areas thus reserved for various purposes other than forestry there remains an appreciable area of unreserved and unappropriated public domain which supports or has supported timber of commercial value or of great importance for watershed protection. It would be wholly consistent with prevailing Federal policies of land management to permanently add such unreserved and unappropriated public lands to the national forests so as to safeguard their future values for timber production and streamflow stabilization. That, however, is a matter of congressional or Executive action outside of the scope of the acquisition program.

As above indicated the 121 national forests in the western United States contain 17,850,668 acres in ownerships other than Federal. Prior to the creation of the national forests title to much of the choicest and most productive timberlands had been established by the operation of State or other land grants and by private appropriation. These lands seldom occur in solid bodies of large extent but as a general rule are widely interspersed among the national-forest lands to which they normally bear an integral relationship. A certain part of the privately owned land clearly is best adapted to private management for grazing, agricultural, recreational, or other uses or services within the field of private initiative. Approximately 10 to 12 million acres of it is most valuable for timber production and should be under the same protection and management as the intermingled national-forest lands. Some of this land has been depleted of its timber value by logging, fires, insects, disease, or windthrow, or a combination of two or more such causes; much of it still supports heavy stands of timber of commercial size and quality which could most economically be utilized in conjunction with the public timber in the same unit.

The boundaries of the national forests in the western public-land States frequently were dictated by the lines of private ownership and thus fall far short of encompassing the natural limits of the timbered areas of which they are parts. In consequence there are outside of but contiguous to the national forests millions of acres of other timber-productive lands, in part cut over, in part still bearing virgin stands of timber, which likewise are integral parts of the national-forest units. They should be governed by the same plans and principles of management and utilization, subject to the same systems of protection and physical development. Their jointure with the publicly owned properties would mean the highest and best use and development of both properties; the mitigation of the condition of unrestrained and destructive exploitation, so detrimental to related national-forest lands, which otherwise seems inevitable under prevailing circumstances.

The fullest realization of the public purposes and values of the national forests depends upon the degree to which these intermingled or related lands come under the same administration and management.

Some of them doubtless will be donated to the United States; others can be acquired by giving in exchange other national-forest lands of lesser public importance and value or equal values of national-forest stumpage. The net value at which they would be obtainable is therefore largely conjectural.

So far as the western public domain States are concerned, the only hitherto prevailing policy and program of forest-land acquisition has been that of exchanges of national-forest land and/or stumpage for privately owned lands within the national forests, or in some instances within adjacent areas defined by special acts of Congress. Since 1908, Congress has enacted 56 laws of more or less general application and 13 laws specifically describing the lands subject to exchange, under which exchanges can be made. Under these various laws a total of 830 separate exchanges have been made, involving Federal acquisition of 1,205,100 acres of land valued at \$4,773,519, and the grant in exchange therefore of 390,415 acres of national-forest land valued at \$1,795,099 and 858,268 M board feet of national-forest stumpage valued at \$2,377,820. The net gain in national-forest area thus has been 814,685 acres, but the gain in timber-productive area has been greater than that since nearly all of the offered land was timber-productive soil while much of the selected land was of low forest value and desired primarily for grazing use.

The cumulative record of land exchanges by States is contained in table 2. Included in the table are exchanges made with the States of California, Michigan, and Nebraska, whereby the respective State and Federal holdings were consolidated in units susceptible of most effective and economical management. The table does not include earlier agreements with the States of Idaho, Montana, Oregon, South Dakota, and Washington, under which these States relinquished 1,200,980 acres within the national forests, and selected 275,000 acres of other public domain lands, plus 924,362 acres eliminated from the national forests to permit such selection.

However, the exchange authority does not fully meet the present need. To begin with, the commodity most desired in exchange for privately owned lands is salable national-forest stumpage, and the employment of large volumes of such stumpage necessarily curtails receipts to the Treasury and the shares thereof paid to the counties embracing national forests. To avoid injustice to those counties, the rule has been adopted that the value of the national-forest stumpage granted in exchange for private lands during any given year shall not markedly exceed 10 percent of the value of the stumpage sold for cash. Under this policy curtailed national-forest timber-sale activity means also the curtailment of private-land acquisition through exchange. The other adverse feature of the land-exchange policy is that it does not meet the needs of the owners of large bodies of heavily timbered operable lands, who would be willing enough to dispose of their properties for cash but have no desire to exchange them for national-forest lands of similar character and value. Due to this fact only a minor part of the lands hitherto acquired through exchanges support large volumes of currently merchantable timber.

TABLE 2.—Number of land-exchange cases consummated up to Dec. 31, 1931

State	Num-ber	Land conveyed to the United States		Selected land granted in exchange		Timber granted in exchange	
		Area	Appraised value	Area	Appraised value	Volume	Appraised value
		<i>Acres</i>		<i>Acres</i>		<i>M board ft.</i>	
Arizona-----	24	173, 894	\$308, 581	8, 864	\$21, 321	109, 733	\$267, 004
Arkansas-----	4	32, 945	61, 679	146	1, 030	7, 746	59, 580
California-----	85	175, 729	1, 414, 430	25, 671	481, 667	216, 811	675, 308
Colorado-----	168	75, 074	321, 602	25, 592	64, 456	59, 099	167, 270
Florida-----	11	55, 917	116, 562	21, 015	42, 181	12, 514	72, 785
Idaho-----	68	59, 897	155, 443	538	2, 546	19, 745	127, 368
Michigan-----	20	136, 004	227, 733	135, 113	198, 248		
Minnesota-----	16	2, 854	16, 985	26	16	2, 796	12, 825
Montana-----	87	129, 462	263, 185	76, 929	191, 707	24, 747	72, 942
Nebraska-----	1	8, 960	44, 800	8, 959	44, 793		
Nevada-----	1	3, 504	6, 728	3, 520	6, 013		
New Mexico-----	34	68, 006	295, 161	8, 076	14, 415	109, 427	266, 122
North Carolina-----	1	71	144	1	4		
Oregon-----	178	181, 592	1, 091, 886	44, 914	571, 274	199, 592	434, 134
South Dakota-----	28	8, 666	28, 276	418	1, 916	5, 002	19, 221
Tennessee-----	1	14	70		1		
Utah-----	39	29, 070	155, 175	27, 903	145, 017		
Washington-----	48	57, 269	232, 510	967	5, 195	85, 625	185, 627
Wyoming-----	16	6, 172	32, 569	1, 763	3, 299	5, 431	17, 634
Total-----	830	1, 205, 100	4, 773, 519	390, 415	1, 795, 099	858, 268	2, 377, 820

EASTERN STATES

The proposal that the Federal Government acquire and permanently manage certain forest areas in the Eastern States apparently originated, or at least was first formally expressed, at Asheville, N.C., in 1899. Different agencies interested in the development of the Southern States had noted with concern the rapidity with which the original stands of timber were being exploited and the ensuing impoverishment of the lands through fire and erosion. Their interest was esthetic as well as economic, and the first tentative proposals were for the establishment of national parks, but in time sentiment crystallized in favor of national forests as a more practical form of Federal administration. The idea quickly found favor in New England where the rapid progress of timber utilization was likewise creating alarm; so that the two widely separated regions joined in support of the new proposal of Federal participation in the solution of the rapidly enlarging problem.

So radical a departure from previously existing concepts of Federal functions inspired widespread differences of opinion, not only among Members of the Congress but among laymen as well. The constitutionality of the proposal was both attacked and supported by eminent authorities on the subject. Conferences and hearings were held, not only by congressional committees but also by organized unofficial groups and agencies. In all, the subject was under detailed consideration for a total period of 12 years. At the end of that period Congress enacted the law of March 1, 1911 (36 Stat. 961), popularly known as the "Weeks Law" because of its sponsorship by John W. Weeks, then a Representative from Massachusetts but later to be a Senator from that State and eventually Secretary of War. The primary purpose of the act was to safeguard the navigability of streams by maintaining on their upper headwaters the forest cover necessary to prevent excessive run-off and erosion.

The Weeks Law is generally applicable to all parts of the United States, but it was enacted to meet conditions which were particularly acute in the Eastern States. Its practical application, as a matter of administrative policy, therefore has been limited to those States situated east of the Great Plains, since the extensive areas of public lands in the Western States afforded a large field of Federal action without additional acquisition through cash purchase.

As originally formulated, the purchase program contemplated the eventual purchase of approximately 1 million acres in the New England States and 5 million acres in the Southern Appalachian region. In time the program was enlarged to include the national-forest units in Arkansas, and later to permit the establishment of a unit in northwestern Pennsylvania. Meanwhile, changes were made in the boundaries of previously established areas so that they would more effectively serve the purpose of their creation. At the close of the fiscal year 1924 there were 23 approved purchase units (later consolidated into 18) with a combined gross area of 9,568,515 acres.

Under the Weeks Law, purchases were confined to areas on the upper headwaters of navigable streams where the maintenance of a forest cover was found by the United States Geological Survey to favorably influence the navigability of the stream. This limitation debarred from consideration the vast forest areas in the Lake States and the southern pine belt of the South Atlantic and Gulf States, where the need for constructive public action in forest conservation became more acute with each passing year. In consequence a demand arose for the extension of the Federal purchase program to such regions as a means of determining, demonstrating, and stimulating better forest practice. In response to that demand the Sixty-seventh Congress, by Senate Resolution 398, created a Senate select committee of five members, which made an exhaustive study of the entire situation, holding hearings throughout the country at many important centers of timber production and use. Its findings, Senate Report No. 28, Sixty-eighth Congress, recommended amendment of the Weeks Law to include timber production as an objective of Federal management; which was done by the act of June 7, 1924 (43 Stat. 653), popularly known as the "Clarke-McNary law."

Pursuant to the purpose of that law an enlarged program was submitted to and approved by the National Forest Reservation Commission, under which 20 new purchase units designed primarily to stimulate timber production were proposed and eventually established. Meanwhile need was established for three additional units primarily to protect watersheds and these also were approved.

The full extent, present attainment, and requirements for completion of the hitherto established acquisition program in the Eastern States, under the Weeks Law as modified by the Clarke-McNary Law, is set forth in table 3. It shows that primarily for watershed protection 21 national-forest purchase units have been created in 16 of the Eastern States. They contain a gross area of 10,696,453 acres, of which 4,717,307 acres is now under Federal control. Of this, 3,728,083 acres have been acquired by purchase at a total cost of \$18,832,667.64, an average of \$5.05 per acre.

TABLE 3.—Federal acquisition program, accomplished and proposed

(A) PRIMARILY FOR WATERSHED PROTECTION

Accomplished up to June 30, 1932										Required to complete existing units				
Region and State	Units established ¹	Gross area	Area fed-erally managed	Ratio, federal-ly con-trolled to total forest area of State	Area pur-chased or in process of pur-chase	Ratio, pur-chased to total acquir-ed	Aver-age cost per acre	Total cost of pur-chase and relation to total expendi-ture		Addition-al area to be ac-quired ²	Total then under Federal manage-ment	Ratio, federal-ly man-aged to total forest in State	Aver-age cost per acre	Total cost of per-chase and relation to total expenditure
								Acres	Percent					
New England:	Number	Acres	Acres	Percent	Acres	Percent	\$	\$	Percent	Acres	Acres	Percent	\$	Percent
Maine-----	1 Part.	53,300	33,781	0.23	33,781	0.71	\$5.74	\$193,792.06	0.91	219,019	52,800	0.36	\$5.75	\$109,359.25
New Hampshire-----	Part.	801,900	500,955	11.13	500,955	10.60	8.68	4,348,270.27	20.51	276,245	777,200	17.26	6.00	1,657,470.00
Vermont-----	1	102,100	31,491	.96	31,491	.67	11.01	346,672.00	1.64	268,509	300,000	9.14	8.50	2,282,326.50
Regional total-----	2	957,300	566,227	2.54	566,227	11.98	8.63	4,888,734.33	23.06	563,773	1,130,000	5.07	7.18	4,049,155.75
Appalachian:														
Alabama-----	1	198,425	134,535	.62	116,826	2.47	4.86	567,597.79	2.68	20,550	155,085	.72	5.00	102,750.00
Georgia-----	Part 3.	660,600	341,797	1.48	341,783	7.23	5.37	1,836,683.20	8.66	266,013	607,810	2.64	4.65	1,237,692.75
Kentucky-----	1	580,000	-----	-----	-----	-----	-----	-----	-----	509,000	509,000	4.83	5.00	2,545,000.00
North Carolina-----	Part 8.	1,338,500	451,160	2.14	439,721	9.30	5.79	2,545,007.49	12.00	800,854	1,252,014	5.94	4.30	3,440,853.50
Pennsylvania-----	1	726,340	371,201	2.81	371,181	7.85	4.79	1,778,725.28	8.39	234,999	606,200	4.59	6.00	1,409,994.00
South Carolina-----	Part.	244,300	48,950	.39	48,950	1.03	5.88	287,755.66	1.36	188,170	237,120	1.88	4.00	752,680.00
Tennessee-----	Part 3.	865,100	393,672	2.76	393,668	8.33	4.82	1,897,925.57	8.95	394,896	788,568	5.54	4.49	1,773,082.25
Virginia-----	Part 4.	1,244,500	619,825	4.10	619,690	13.11	3.67	2,272,324.88	10.72	490,244	1,110,069	7.34	4.22	2,067,160.00
West Virginia-----	Part 2.	819,100	336,102	3.38	336,102	7.11	3.43	1,152,103.36	5.43	376,155	712,257	7.15	3.91	1,469,129.50
Regional total-----	14	6,676,865	2,697,242	1.91	2,667,921	56.43	4.62	12,338,123.23	58.19	3,280,881	5,978,123	4.23	4.51	14,798,342.00
Ozarks:														
Arkansas-----	Part 2.	2,221,522	1,288,920	5.82	342,841	7.25	3.44	1,177,665.07	5.55	765,652	2,054,572	9.28	4.06	3,105,663.50
Oklahoma-----	Part 2.	344,249	61,489	.52	61,489	1.30	1.46	89,663.07	.42	297,000	358,489	3.03	2.50	742,500.00
Regional total-----	3	2,565,771	1,350,409	2.62	404,330	8.55	3.13	1,267,328.14	5.97	1,062,652	2,413,061	4.68	3.62	3,848,163.50
Gulf and Southeast:														
Louisiana-----	1	105,567	24,575	.13	24,575	.52	3.18	78,217.78	.37	68,992	93,567	.49	3.65	251,820.80
Mississippi-----	1	325,000	65,030	.35	65,030	1.38	4.00	250,264.16	1.23	194,970	260,000	1.40	5.00	974,850.00
Regional total-----	2	430,567	89,605	.15	89,605	1.90	3.78	338,481.94	1.60	263,962	353,567	.60	4.65	1,226,670.80
Puerto Rico-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total watershed units.	21	10,696,453	4,717,307	1.86	3,728,083	78.86	5.05	18,832,667.64	88.82	5,171,268	9,888,575	3.90	4.63	23,922,332.05

¹ Where single units are in 2 or more States they are counted in each State, but regional totals show the correct number in each region.

² This column includes proposed extensions of existing units as follows: Green Mountains, 198,000 acres; Mount Mitchell, 2,000 acres; Unaka, 52,000 acres; French Broad, 111,300 acres; Monongahela, 153,800 acres; Kiamichi, 26,000 acres; Hiawatha, 118,000 acres; Huron, 1,000 acres; and Ottawa, 90,000 acres.

In order fully to accomplish the purposes for which these units were created, the Federal Government should further acquire within their boundaries a total of approximately 5,171,268 acres. On the basis of past values this area would cost approximately \$23,922,332, or an average of \$4.65 per acre, but present price trends indicate that the actual cost would be substantially lower, probably not exceeding \$20,000,000. If the program were carried out in full the Federal Government within the 21 units would then control 9,888,575 acres, at a total purchase cost of something less than \$39,000,000.

The stimulation of timber production as a Federal function in the Eastern States is not wholly a process of large scale direct ownership and management of land but also one of research, experimentation, and demonstration. These purposes can be accomplished with administrative units smaller than the areas required where watershed protection is the objective. To date, 20 timber-production units have been established in 6 different States, but 2 of those States also contain watershed units so that the total number of States affected is 20. Within the 20 established timber-production units the United States now controls 2,514,248 acres; of which 999,597 acres have been acquired by purchase at a total cost of \$2,370,354.29, or an average of \$2.37 per acre. To complete the 20 existing units an additional area of about 2,468,474 acres should be acquired; at a cost of \$7,000,000. If that were done, the total area under Federal control in the 20 established units would be 4,982,722 acres; for which something less than \$10,000,000 would have been paid.

The statements contained herein relate only to the completion of the existing national forests to a point where their public objectives and values can be fully realized within reasonable limits of administrative cost. They present only a partial and incomplete picture of future requirements. The economic facts which seem indubitably and imperatively to dictate the enlargement of many of the existing national forests and the establishment of many others are set forth in another section of this report, which presents in detailed terms of distribution, area, and cost the apparent ultimate scope of the national-forest system.

A considerable part of the lands which will be proposed for acquisition are in the Pacific coast and northern Rocky Mountain regions. The facts stated in the fore part of this section make it evident that the passage of such lands to Federal ownership, under conditions fair and equitable both to the public and to the landowners, would in large measure relieve a situation which while originating in a somewhat limited territory is national in its ultimate consequences. The program which will be proposed, therefore, would not be antagonistic to the best interests of the private owner of forest lands but, on the contrary, would be in complete accord with the evident trend of land economy and forest economy.

Lands acquired in the Eastern States would not contain the large volumes of stored-up timber characteristic of the Western States. The effect of their acquisition would not be to relieve private owners from an accumulation of past burdens, but to afford such owners better opportunities for progress and profit in the future operation of the forest properties suitable for private management, by supplementing the production of such properties, by affording means for

better developing and demonstrating best principles of forest management, and by contributing to the systematic control of fire, disease, and insects. By making the national-forest units centers of research, experimentation, demonstration, and constructive cooperation, the Federal Government will not only meet those phases of the forest problem which are national in their implications and consequences but will also create conditions more favorable to the private practice of forestry.